# HiCrome™ OGYE Agar Base

Recommended for isolation and enumeration of yeasts and moulds from milk and milk products by chromogenic method.

M1467

## Composition **

| Ingredients | Grams/Litre |
|---|---|
| Yeast extract | 4.00 |
| Dextrose (Glucose) | 20.00 |
| Chromogenic mixture | 1.10 |
| Agar | 12.00 |

Final pH (at 25°C) 7.0 ± 0.2
** Formula adjusted, standardized to suit performance parameters

## Directions

Suspend 18.55 grams in 500 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add reconstituted contents of one vial of Oxytetra Selective Supplement (FD032). Mix well and pour into sterile Petri plates.

## Principle and Interpretation

OGYE Agar Media were originally formulated by Mossel et al (1, 2) for the isolation and enumeration of yeasts and moulds from foodstuffs. Mossel et al (3) further added Oxytetracycline as a selective agent and found that the use of Oxytetracycline in a medium with a neutral pH gives increased counts of yeasts and moulds as compared to media having a low pH to suppress bacterial growth. HiCrome™ OGYE Agar is a selective and differential medium, which facilitates rapid isolation of yeasts and moulds from milk and milk products.

Yeast extract provides essential growth nutrients. Dextrose acts as carbon and energy source. Although the low pH helps to reduce the bacterial flora, Oxytetracycline makes the medium, more selective by inhibiting the growth of lactobacilli encountered in milk and milk-products at low pH. Incorporation of chromogenic compounds into the growth medium helps in identification of yeasts and moulds isolates directly on primary isolation. **Aspergillus brasiliensis* appear as light blue coloured colonies with black spores due to presence of chromogenic mixture, *C.albicans* shows green coloured colonies and *Saccharomyces cerevisiae* forms colourless colonies.

## Type of specimen

Dairy : Milk & Milk products samples

## Specimen Collection and Handling

For dairy samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (4, 5).

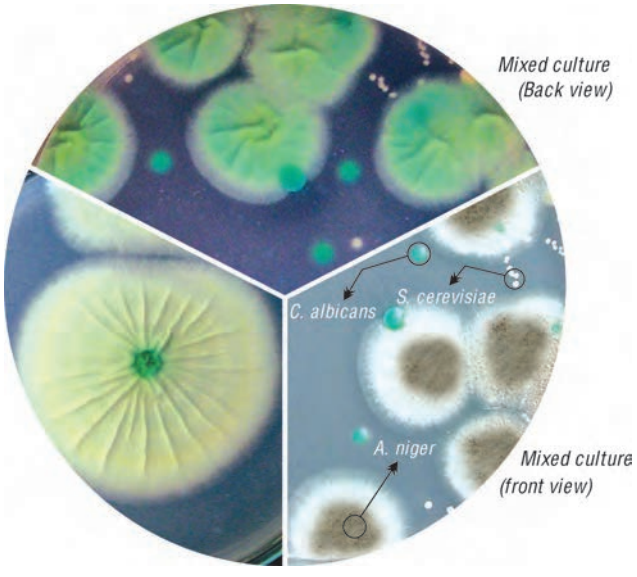
After use, contaminated materials must be sterilized by autoclaving before discarding.

## Warning and Precautions

Read the label before opening the container. Wear protective gloves/ protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets

## Limitations

1. Due to variable nutritional requirements, some strains may show poor growth on this medium.
2. Slight colour variation may be observed depending upon the utilization of the substrate by the organism.




M1467 – HiCrome™ OGYE Agar Base
*Formerly known as Aspergillus niger

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## Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the recommended temperature.

## Quality Control

**Appearance of Powder** : Cream to yellow coloured homogeneous, free flowing powder.

**Gelling** : Firm, comparable with 1.2% Agar gel.

**Colour and Clarity of prepared medium** : Light amber coloured, clear to slightly opalescent gel forms in Petri plates.

**Reaction** : Reaction of 3.71% w/v aqueous solution at 25°C. pH:7.0 ± 0.2.

**Cultural Response** : Cultural characteristics observed with added Oxytetra Selective Supplement (FD032) after anincubation at 25-30°C for 2-3 days.

| Organisms (ATCC) | Inoculum (CFU) | Growth | Recovery | Colour of colony |
|---|---|---|---|---|
| #*Aspergillus brasiliensis* (16404) (00053*) | 50-100 | luxuriant | — | light blue with black spores |
| *Candida albicans* (10231) (00054*) | 50-100 | luxuriant | ≥50% | green |
| *Escherichia coli* (25922) (00013*) | $\geq 10^3$ | inhibited | 0% | — |
| *Saccharomyces cerevisiae* (9763) (00058*) | 50-100 | luxuriant | ≥50% | colourless |

Key : * : Corresponds to WDCM number
# : Formerly known as *Aspergillus niger*

## Storage and Shelf-life

Store between 2-8°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle inorder to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition Seal the container tightly after use. Use before expiry date on the label.

Product performance is best if used within stated expiry period.

## Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (6, 7).

## References

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3. Mossel D.A.A., Visser M. and Mengerink W.H.J., 1962, Lab. Prac. 11:109.
4. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington, D.C
5. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.
6. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
7. Jorgensen,J.H., Pfaller , M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1